A REVIEW OF ANTIOXIDANT ACTIVITY IN OIL PALM *(Elaeis guineensis)* EXTRACT AND REFINED PALM OIL.

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ABSTRACT

A REVIEW OF ANTIOXIDANT ACTIVITY IN PALM OIL *(Elaeis guineensis)* EXTRACT AND REFINED PALM OIL.

Oil palm is rich with phytonutrients such as carotenoids, tocols, sterols, phenolic compound, squalene and coenzyme Q. The carotenoids, tocols, sterols and this phenolic compound are known to exhibit natural antioxidant properties. Depletion of antioxidant enzymes is known to increase the risk of complication such as cardiovascular disease, diabetes and cancer. Thus, in order to investigate such effects of antioxidant properties in palm oil, we have reviewed the antioxidant agent present in the extraction of oil palm such as oil palm leafs extract (OPLE), oil palm fresh fruit / FFB and refined palm oil after deep frying. Most of the finding revealed oil palm totally contains antioxidant compound that helps to reduce free radical.

1. INTRODUCTION

The oil palm family is one of the largest monocotyledon families known as *arecaceae* or *palmae*. The most present estimation shows that palm contains 189 genera (Uhl & Dransfield, 1987) and approximately has 2000 species of palms.

This palm can be found commonly in the tropical area throughout the world, which this species is highly concentrated on tropical America and southest Asia. This species is highly abundant on lowland area, tropical area and montane moist forest. The oil palm also one of the essential families to mankind which is ranking right after the grasses in the tropics, and equivalent to the legumes. Apart from various well-known palmae trees such as date palm (*phoenix dactylifera*), oil palm (*Elaeis oleifera & Elaeis guineensis*), coconut (*Cocos nucifera*), and other species of palm trees which actually has offer plentiful useful products in terms of medicine, food and fibers (Ballick & Beck, 1990).

As we know, the oil palm or scientifically called as *Elaeis guineensis jacq* is indigenous to the west Africa where the main palm belt run from Ghana, Ivory Coast, Sierra Leone, Liberia and Cameroon until to the equatorial region of the Republic of Congo and Zaire (Hartley, 1988).

The palm oil development as a plantation sector was started on South East Asia where four African oil palm seeds from Amsterdam and Mauritius which germinated on Bogor botanic gardens on 1848 were introduced.

The development of this sector in Malaysia was started by the Henri Fauconnier and his fellow association namely Hallet, where this both Frenchman has introduced a new